Programme on
Revenue Management and Dynamic Pricing
November 24-29, 2014

BUSINESSES IMPROVE PROFITS BY
Reducing Costs
Increasing Revenues
Revenue Management
Profits
A perishable service is one that cannot be used after a certain time. The potential revenue from an airline seat is lost if it is not filled by the time the flight leaves. A railway seat is lost if it is not filled by the time the train leaves. The revenue from a hotel room left empty for a night is lost. A rental car left idle during a day is a revenue loss. Airline seats, hotel rooms, and rental cars are some of the examples of perishable services. Some examples of perishable service providers are broadcasters and telecommunication companies. Studies by a leading consulting company have shown that for the average S&P 1500 company, a price increase of 1% would generate an increase in profits of 8-12%, i.e., an impact 50% greater than a 1% cut in variable costs and 300% greater than a 1% increase in volumes.

With the liberalization of the Indian economy and deregulation of many previously controlled sectors, it has become important to adopt systems that assign prices, inventory, and capacity dynamically according to the demand. Revenue management is the scientific way of dynamically managing prices, inventories, and capacities of perishable services. The general principles of revenue management are widely applicable although each particular application needs to carefully address the requirements of a specific industry.

Coined as the “number one emerging business strategy” by the Wall Street Journal, revenue management is the art and science of price-driven profit maximization.

Revenue management is a proven technique that helps service industries maximize revenue. There are numerous demonstrations of the impact of revenue management in various industries.

- A beginning of the revenue management concept has already been demonstrated by advanced purchase of tickets offered by airlines, weekend discount by hotels, different tariffs by power generation and distribution companies, and the Tatkal service by the Indian Railways.
- Software companies that specialize in revenue management solutions are visible in India.
- Almost all major international airlines have already implemented revenue management systems. American Airlines, one of the pioneers, increased its yearly revenue by $500 million as a result.
- National Car Rental has increased its revenue by $56 million/year.
- National Broadcasting Corporation has increased its annual revenue by $50 million/year.
- French National Railway has increased its revenue by 110 million francs/year. German Railways is using revenue management.
- Texas Children’s Hospitals use revenue management as competitive advantage.
- Twitter has increased friendship by 12% (2014).

Recent Applications of Revenue Management

Marriott International which has been using revenue management for the last 20 years has developed a Group Pricing Optimizer (GPO) and increased its revenue by $46 million in 2008. GPO is now used by over 1,500 sales managers to sell nearly 200 hotels across North America.

Retail price optimization of more than 2,000 hotels of Intercontinental Hotel group has led to 2.7% increase in revenue in 2009. This was reported in 2011. Carlson Rezidor Hotel group and JDA has created next generation Revenue Optimization Tool that is being used in more than 183 hotels and make 2 to 4% revenue improvement at pilot stage. In addition, analytics-driven Operations Research and Revenue Management techniques have helped Intel, CSX Railway, USA, Canadian Pacific Railway, and Netherlands Railways to improve their bottom line significantly (reported in 2007-2009).

According to Professor Peter Bell, Richard C. Ivey School of Business, “Revenue management concepts will be applied to almost everything that will be sold and will prove to be such a powerful competitive weapon that major firms will be living, and in many cases dying, according to revenue management algorithms.”

**Discount Seat Allocation**

<table>
<thead>
<tr>
<th>Decision Tree</th>
<th>Expected Marginal Seat Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reject Request</td>
<td>Sell Full Fare($F)</td>
</tr>
<tr>
<td>Accept Request</td>
<td>Do not Sell Full Fare ($0)</td>
</tr>
<tr>
<td>pF</td>
<td>1-p</td>
</tr>
<tr>
<td>Discount Fare</td>
<td>(1-x)F</td>
</tr>
<tr>
<td></td>
<td>Revenue of Marginal Reservations</td>
</tr>
<tr>
<td></td>
<td>Number of Reservations Allocated</td>
</tr>
</tbody>
</table>

**Discount Seat Allocation**

<table>
<thead>
<tr>
<th>Full Fare</th>
<th>Moderate Discount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deep Discount</td>
<td>Point A</td>
</tr>
<tr>
<td>B</td>
<td></td>
</tr>
</tbody>
</table>
It may be worth mentioning that application of management science models improved the contribution to profit of Tata Steel by $73 million in 1986-87 and gave a cumulative impact of hundreds of millions of dollars in later years.

For Whom
The participants of this programme are expected to be senior level executives who are responsible for maximization of revenue. These persons will be either from the commercial sector, information technology sector or marketing sector. Persons who are engaged in developing pricing systems in hotels, airlines, car rentals, restaurants, internet service providers, movie theatres, casino broadcasters, healthcare, trucking, transportation service providers, energy, petroleum, sports complex and cricket associations, cruise liners, and manufacturing would find this programme extremely relevant and useful. In addition, this will be an interesting area for consultants to work on.

Selection
Seats are limited. Selection for the programme will be based on academic and professional achievements of the participants.

Objectives
This programme aims to:
• provide an insight into concepts of revenue management
• provide an understanding of how revenue management systems improve revenue
• acquaint the participants with various tools and techniques used in revenue management
• discuss the practice of revenue management in various industries
• discuss the technical and organizational challenges for implementing revenue management systems

Content
• The business process of revenue management
• Economics of revenue management
• Perishable services pricing
• Inventory allocation
• Capacity management
• Legal issues of revenue management
• Case study and practice in the Indian context
• Implementation of revenue management in an organization

Illustrative examples from several industries will be provided. Participants will have an opportunity to work in computer terminals to acquaint themselves with computer-aided decision-making applications illustrating revenue management.

Methodology
The pedagogical methods and materials will include lectures, discussions, case studies, computer exercises, video shows, and games.

Faculty
• Anurag K. Agarwal, LLM (Harvard), LLD (Lucknow)
• Goutam Dutta, Ph.D. (Northwestern University), (Coordinator), goutam@iimahd.ernet.in (M): +91 98251 08105
• Arnab K. Laha, Ph.D. (Indian Statistical Institute, Calcutta)
• G. Raghuram, Ph.D. (Northwestern University)
• Debjit Roy, Ph.D. (University of Wisconsin-Madison)
• Arvind Sahay, Ph.D. (University of Texas at Austin)

In addition, the programme may have visiting faculty either from within India or abroad who have good experience of developing, implementing or using revenue management systems in the Indian industry.

Venue and Accommodation
The programme will be held at the Indian Institute of Management, Ahmedabad. Participants get full board and air-conditioned single room accommodation on the Institute campus.

Programme Fee
Rs.80,000 (+12.36% service tax) per person for participants from SAARC countries including India and US$ 2,500 (+12.36% service tax) for participants from other countries. The fee includes tuition fees, teaching materials, board, and lodging.

The programme fee should be received at the Executive Education Office before the programme commencement date. In case of cancellations, the fee will be refunded only if a request is received at least 15 days prior to the start of the programme. If a nomination is not accepted, the fee will be refunded to the person / organization concerned.

The programme fee can be paid in one of these three ways:

A. Demand draft/cheque payable at par at Ahmedabad
   The cheque/draft should be in favour of “Indian Institute of Management, Ahmedabad.”

B. Electronic Fund Transfer. The relevant details are:
   1. For credit to Savings Bank A/c No.032010100040460 or Current A/c No.032010200002660, IIM, Ahmedabad
   Axis Bank, Vastrapur Branch (RTGS Code: UTIB0000032)
   2. Name of Remitter:________________________ (Please mention the name of the sponsoring organization)
   3. Purpose of Remittance: Revenue Management and Dynamic Pricing
4. IIMA Permanent Account Number (PAN): AAATI1247F
5. IIMA Tax Deduction Account Number (TAN): AHMI00189A
6. IIMA Service Tax Registration Number: AAATI1247FST001

C. Payment Gateway

Please visit IIMA website (www.iimahd.ernet.in/exed) for more information.

If you pay online, please e-mail us the complete transaction details immediately so that we can connect your remittance to your nomination.

Discount

Early Bird Discount: Nominations received with payments on or before November 3, 2014 will be entitled to an early bird discount of 10%. Early submission of fee and nomination does not, however, guarantee acceptance of application.

Group Discount: Any organization sponsoring five or more participants to a programme will be entitled to a discount of 10% on the total fee payable provided that at least five participants actually attend the programme.

Organizations can avail themselves of both the discounts subject to a maximum overall discount of 20%.

Nominations and Inquiries

Nominations should reach the Manager - Executive Programmes latest by November 10, 2014.

Organizational sponsorship is generally required but can be waived in case the participant is likely to gain significantly from the programme for personal improvement or greater job effectiveness.

All nominations are subject to review and approval by the programme faculty (usually after the due date for receiving nominations). A formal acceptance letter will be sent to selected nominees accordingly. Nominees are requested to make their travel plans only after receiving the acceptance letter.

IIMA norms do not allow anyone to stay with the participants during the programme.

For nomination forms and more information, please contact:
Manager - Executive Education
Indian Institute of Management Ahmedabad, Vastrapur, Ahmedabad 380 015
Phone: 91-79-6632 4071/4072-78, 4081 • Fax: 91-79-2630 0352 (Executive Education)/2630 6896 (General)
email: exed@iimahd.ernet.in • website: www.iimahd.ernet.in/exed

Alumni Association

Please note that participants who are attending short-duration Executive Education Programmes for the first time, on or after April 1, 2012, will have to attend a total of 21 days in one or more programmes to be eligible for alumni status and alumni identity card, both of which will be awarded on payment of one-time alumni fee of Rs.10,000.